

	Type	L #	Hits	Search Text
1	BRS	L66	436	"yeast two-hybrid"
2	BRS	L71	11230 47	sensitivity or detection
3	BRS	L76	21260 8	GRE or ERE or UAS
4	BRS	L86	0	76 same 81
5	BFS	L91	3	66 same 76
6	BFS	L96	1733	"two hybrid" or "two-hybrid"
7	BFS	L101	16	96 same 76
8	BRS	L106	1113	"inducible expression"
9	BRS	L111	3	106 same 96
10	BRS	L116	5	ERE with hybrid
11	BRS	L121	9	GRE with hybrid
12	BRS	L126	570	activat\$ same 96
13	BRS	L127	3	(estradiol or dexamethasone) same 126
14	BRS	L132	2	126 same 106
15	BRS	L137	16	"activatable promoter"
16	BRS	L142	0	137 and 96
17	BRS	L81	26	66 same 71

09/18/98

Fig #5 HaeL

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FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE' ENTERED AT 19:06:04 ON 21 JUN 2001

09/08/93  
Hach-Pyler #5

L15 16551 TWO-HYBRID OR TWO HYBRID  
L16 58 ERE (S) HYBRID  
L17 49 GRE (S) HYBRID  
L18 26 L15 (S) L16  
L19 3 L15 (S) L17  
L20 11 DUP REM L18 L19 (18 DUPLICATES REMOVED)  
L21 274 SENSITIVITY (S) L15  
L22 8 HYBRID CONCENTRATION  
L23 254 HYBRID EXPRESSION  
L24 24 L23 (S) L15  
L25 8 DUP REM L22 (0 DUPLICATES REMOVED)  
L26 14 DUP REM L24 (10 DUPLICATES REMOVED)  
L27 0 ERE UAS  
L28 1500 ESTROGEN RESPONSIVE ELEMENT  
L29 1032 UPSTREAM ACTIVATING SEQUENCE  
L30 0 L28 (N) L29  
L31 1 L28 (S) L29  
L32 0 L28 (N) DNA BINDING DOMAIN  
L33 0 L28 (N) BAIT  
L34 85 L28 (S) "DNA BINDING DOMAIN"  
L35 0 L28 (N) GAL4  
L36 1 L34 (S) CHIMERIC  
L37 1970 GLUCOCORTICOID RESPONSE ELEMENT  
L38 6 L37 (S) "ACTIVATION DOMAIN"  
L39 0 L38 AND L34  
L40 2 DUP REM L38 (4 DUPLICATES REMOVED)  
L41 2968 DETECTION LEVEL  
L42 0 L41 (P) L15  
L43 108 DUP REM L21 (166 DUPLICATES REMOVED)  
L44 5 ESTROGEN (S) L43  
L45 29761 "EXPRESSION LEVEL"  
L46 92 L45 (P) L15  
L47 69 L45 (S) L15  
L48 25 DUP REM L47 (44 DUPLICATES REMOVED)  
L49 9724 INDUCIBLE EXPRESSION OR INDUCIBLE PROMOTER  
L50 35 L15 (P) L49

**Loeb, Bronwen**

**To:** STIC-ILL  
**Subject:** ILL order 09/680,738

*Bronwen Loeb, PhD*

AU 1636  
703-605-1197  
CM1 11A-09  
Mailbox 11E-12

Appln 09/680,738

Hays et al (2000) BIOTECHNIQUES, (2000 Aug) 29 (2) 288-90, 292, 294  
Natesan et al (1999) PROC NATL ACAD SCI USA (1999 Nov 23) 96 (24) 13898-13903.  
Hubsman et al(2001) NUCLEIC ACIDS RESEARCH, (2001 Feb 15) 29 (4) E18.  
Medina et al (2000) NUCLEIC ACIDS RESEARCH, (2000 Jun 15) 28 (12) E61.

**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Edwards et al. ) Atty. Dkt. No.: HYB775-00/00381A  
Serial No.: 09/680,738 )  
Filed: October 6, 2000 )  
For: ADJUSTABLE SENSITIVITY, GENETIC )  
MOLECULAR INTERACTION SYSTEMS, )  
INCLUDING PROTEIN-PROTEIN INTERACTION )  
SYSTEMS FOR DETECTION AND ANALYSIS )

Assistant Commissioner for Patents  
Washington, D. C. 20231

**POWER OF ATTORNEY**

Hybrigen, Inc., owner by assignment of the above-identified patent application, hereby appoints the following attorney(s) and/or agents(s) presently listed under Customer Nos. 24,118 (Tulsa), 24,951 (Arkansas) and 24,950 (Oklahoma City) all of the firm Head, Johnson & Kachigian and all members duly authorized to practice law. Further, all foregoing attorney(s)/agent(s) are authorized to prosecute this application to register, to transact all business in the Patent and Trademark Office in connection therewith, and to receive the Letters Patent Document, if issued.

SEND CORRESPONDENCE AND TELEPHONE CALLS TO:

Daniel S. Hodgins, Reg. No. 31,026  
HEAD, JOHNSON & KACHIGIAN  
204 N. Robinson, Ste. 3030  
Oklahoma City, OK 73102  
(405)236-4000  
(405)236-4010 fax

2/13/01  
\_\_\_\_\_  
Date

By:   
David N. Edwards, President & CEO

**CERTIFICATE UNDER 37 CFR 3.73(b)**Applicant: Edwards et al. Application No: 09/680,738 Filed: 10/06/00For: Hybrigen, Inc., a Corporation  
(Name of Assignee) (Type of Assignee, e.g. corporation, partnership, university, government agency, etc.)

certifies that it is the Assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application identified above for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

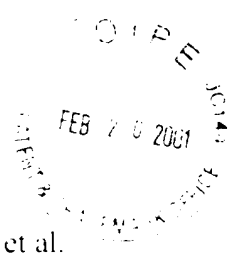
☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Name: David N. EdwardsTitle: President & CEOSignature: Date: 2/13/01



PATENT  
Customer No. 24,950

Applicant(s) or Patentee(s): Edwards et al.

Atty. Dkt. No: HYB775-00 00381A

Serial or Patent No: 09 680,738

Filed or Issued: October 6, 2000

For: ADJUSTABLE SENSITIVITY, GENETIC MOLECULAR INTERACTION  
SYSTEMS INCLUDING PROTEIN-PROTEIN INTERACTION  
SYSTEMS FOR DETECTION AND ANALYSIS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
[37 CFR SECTION 1.9 (f) and SECTION 1.27 (b)]  
SMALL BUSINESS CONCERN

I hereby declare that I am

       the owner of the small business concern identified below:  
X an official of the small business concern empowered to act on behalf of the concern  
identified below:

NAME OF CONCERN HYBRIGEN, INC.  
ADDRESS OF CONCERN 2723 Irving Blvd.  
Dallas, TX 75207-2037

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9 (d) for purposes of paying reduced fees under Section 41 (a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third-party or parties controls or has the power to control both.

I hereby declare that rights under contract of law have been conveyed, to and remain with the small business concern identified above with regard to the invention, entitled

ADJUSTABLE SENSITIVITY, GENETIC MOLECULAR  
INTERACTION SYSTEMS INCLUDING PROTEIN-PROTEIN  
INTERACTION SYSTEMS FOR DETECTION AND ANALYSIS

described in:

☐ the specification filed herewith.  
☒ Application Serial No. 09 680,738 filed October 6, 2000.  
☐ Patent No. \_\_\_\_\_ issued \_\_\_\_\_.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

\* Note: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

NAME OF CONCERN \_\_\_\_\_  
ADDRESS OF CONCERN \_\_\_\_\_

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NON PROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement of small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING \_\_\_\_\_  
TITLE OF PERSON OTHER THAN OWNER \_\_\_\_\_

David N. Edwards  
President & CEO

DATE 2-7-2001 SIGNATURE David N. Edwards



Attorney Docket No. HYB775-00 00381A  
Customer No. 24,950

## COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor(s), I(We) hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ design
- ☐ supplemental

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application do not check next item, check appropriate one of last three items.

- ☐ national stage of PCT

NOTE: If one of the following three items applies, then check and also complete section entitled "CLAIM FOR BENEFIT UNDER 35 U.S.C. § 120."

- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part (CIP)

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

### **ADJUSTABLE SENSITIVITY, GENETIC MOLECULAR INTERACTION SYSTEMS, INCLUDING PROTEIN-PROTEIN INTERACTION SYSTEMS FOR DETECTION AND ANALYSIS**

the specification of which (check one)

☐ is attached hereto.

☒ was filed on October 6, 2000, as Application Serial No. 09/680,738.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56 (a).



**CLAIM FOR BENEFIT UNDER 35 U.S.C. § 119**

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application to which priority is claimed:

**PRIOR FOREIGN APPLICATION(S)**

**Priority Claimed**

_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day month year filed)	Yes	No
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day month year filed)	Yes	No
_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(Day month year filed)	Yes	No

**CLAIM FOR BENEFIT UNDER 35 U.S.C. § 119(e)**

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

**PRIOR PROVISIONAL APPLICATIONS**

**Filing Date**

<u>60/158,079</u>	<u>October 7, 1999</u>
(Number)	
_____	_____
(Number)	
_____	_____
(Number)	

## CLAIM FOR BENEFIT UNDER 35 U.S.C. § 120

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability, as defined in Title 37, Code of Federal Regulations, Section 1.56 (a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

### PRIOR US PATENT APPLICATIONS

_____ USSN	_____ Filing Date	_____ Status
_____ USSN	_____ Filing Date	_____ Status
_____ USSN	_____ Filing Date	_____ Status

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As named inventor, or named inventors, I (We) hereby appoint the attorney(s) and/or agent(s) presently listed in our Customer Nos. 24,118 (Tulsa), 24,951 (Arkansas) and 24,950 (Oklahoma City) all members duly authorized to practice law. Further, all foregoing attorneys are authorized to prosecute this application to register, to transact all business in the Patent and Trademark Office in connection therewith, and to receive the Letters Patent Document, if issued.

### SEND CORRESPONDENCE AND TELEPHONE CALLS TO:

Daniel S. Hodgins, Reg. No. 31,026  
HEAD, JOHNSON & KACHIGIAN  
204 N. Robinson, Ste. 3030  
Oklahoma City, OK 73102  
(405)236-4000  
(405)236-4010 fax

Customer No. 24,950

Full name of sole or first inventor: **David N. Edwards**

Inventor's signature: \_\_\_\_\_

2-7-2001

DATE

Residence and  
Post Office Address: 3820 Spring Valley Rd., #804  
Addison, TX 75001

Citizenship: UNITED STATES OF AMERICA

Full name of second inventor: **Arlene Leon**

Inventors signature: \_\_\_\_\_

2-7-2001

DATE

Residence and  
Post Office Address: 2922 Periwinkle Court  
Garland, TX 75204

Citizenship: UNITED STATES OF AMERICA

Full name of third inventor: **David F. Ranney**

Inventors signature: \_\_\_\_\_

2-8-2001

DATE

Residence and  
Post Office Address: 3539 Courtdale Dr.  
Dallas, TX 75234

Citizenship: UNITED STATES OF AMERICA